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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,517	11/14/2003	Doron Gamliel	967AAB	8672
7590	04/14/2005		EXAMINER	
Kevin Redmond 6960 SW Gator Trail Palm City, FL 34990			HAM, SEUNGSOOK	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/712,517	<b>Applicant(s)</b> GAMLIEL, DORON	
	<b>Examiner</b> Seungsook Ham	<b>Art Unit</b> 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/05 has been entered.

#### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claim 28, "(k) a ground plane...the length of the ground plane being less than the distance between the first and second portions such that the **ground plane does not overlap the first portion....l) a first capacitor being formed by the first metal plate...m) a second capacitor being formed by the second metal plate...and the ground plane**", must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 28-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 28, lines 1-10 (see Amendment filed on 3/28/05, p. 6), "k) a ground plane...the length of the ground plane being less than the distance between the first and second portions such that the **ground plane does not overlap the first portion....l) a first capacitor being formed by the first metal plate...m) a second capacitor being formed by the second metal plate...and the ground plane**" are considered as new

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matter since such limitation was not described in the original specification. In the original disclosure, figure 7 shows a ground plane 70 overlaps with first and second portions of the first and second terminals 47, 48, 53, 54, and also overlaps with metal plates 76 and 78 (thus, forming first and second capacitors). However, there is no suggestion or disclosure that the ground plane does not overlap the first and second portions (claim 28, lines 4-6, p. 6) and also provides first and second capacitors. Moreover, the applicant has failed to provide the support for such limitation in his Remarks filed on 3/28/05.

If applicant does not believe that above limitation is indeed "new matter", then applicant should provide an explanation thereof including pointing out where explicit support for the above limitation can be found in the original disclosure.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al. (JP 08-046469).

Nakajima et al. (figs. 1-3) discloses a filter comprising: first 11a, second 11e and third 11f dielectric layers stacked on each other to form a multi-layered dielectric block; the block having a top surface formed by the first layer, and a bottom surface formed by the third layer; a first terminal 17 located on the first side surface and having a first

portion wrapping around onto the top and bottom surfaces, and third and fourth side surfaces; a second terminal 17 located on the second side surface and having a second portion wrapping around onto the top and bottom surfaces, third and fourth side surfaces; a third terminal 18 located on the third side surface and having a third portion wrapping around onto the top and bottom surfaces; a fourth terminal 18 located on the fourth side surface and having a fourth portion wrapping around onto the top and bottom surfaces; and a ground plane 15 located between the second 11e and the third 11f dielectric layers, the ground plane does not overlap the first and second portions, the ground plane further overlapping the third and fourth portions (the middle extended portions that are connected to the third and fourth terminals 18; a first capacitor C1 being formed by a first metal plate 14a, the second dielectric layer and the ground plane; and a second capacitor C3 being formed by a second metal plate 14b, the second dielectric layer 11e and the ground plane 15.

Nakajima et al. is silent as to whether the dielectric layers can be made of ceramic. However, it would have been obvious to use ceramic material as the dielectric layer in the device of Nakajima et al. since it is well known in the art to use ceramic material as a dielectric layer/substrate in electrical filters. .

Regarding claims 30 and 31, it is inherent from the device of Nakajima et al. that the ground plane or the capacitors improves isolation between the first and second terminals.

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Regarding claim 29, providing vias to connect the ground plane to third and fourth terminals are considered as a matter of design choice since via connection is well known in the art.

Regarding claims 32 and 33, it would have been obvious to form terminals by screen printing process since such design technique is well known in the art, and Nakajima et al. also teaches using print process (see paragraph [0010]).

Claims 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koga et al. (JP '068).

Koga et al. (figs. 1-6) discloses a filter comprising: a first 26, second (the dielectric layer that has capacitor internal electrodes 14, 15), and third (the ground electrode layers 7b, 7c and the layer has the inductor electrode 22) dielectric/ceramic layers to form a multi-layered dielectric block; a first terminal 3 located on the first side surface 1 and having a first portion wrapping around onto the top surface and the bottom surface; a second terminal 4 located on the second side surface and having a second portion wrapping around onto the top surface and the bottom surface; a third terminal 5 located on the third side surface and wrapping around onto the top and bottom surface; a fourth terminal 6 located on the fourth side surface 1e and wrapping around onto the top and bottom surfaces; and a ground plane 7b located between the second and third dielectric layers, and the ground plane does not overlap the first and second portions (see fig. 3).

Koga et al. does not show the first and second terminals are wrapped around side surfaces. However, such wrapping technique is well known in the art. Therefore, it

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would have been obvious to one of ordinary skill in the art to provide the first and second terminals wrapped around the side surfaces in the device of Koga et al. since such technique is well known in the art.

Regarding claims 30 and 31, it is inherent from the device of Koga et al. that the ground plane or the capacitors improves isolation between the first and second terminals.

Regarding claim 29, providing vias to connect the ground plane to third and fourth terminals are considered as a matter of design choice since via connection is well known in the art.

Regarding claims 32 and 33, it would have been obvious to form terminals by a screen printing process since such design technique is well known in the art.

Claims 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al. (JP 07-288441) in view of Nosaka et al. (US Pat. App. Pub. '563).

Nakajima et al. Nakajima et al. (figs. 1-3) discloses a filter comprising: first 11a, second 11e and third 11f dielectric layers stacked on each other to form a multi-layered dielectric block; the block having a top surface formed by the first layer, and a bottom surface formed by the third layer; a first terminal 17 located on the first side surface and having a first portion wrapping around onto the top and bottom surfaces, and third and fourth side surfaces; a second terminal 17 located on the second side surface and having a second portion wrapping around onto the top and bottom surfaces, third and fourth side surfaces; a third terminal 18 located on the third side surface and having a third portion wrapping around onto the top and bottom surfaces; a fourth terminal 18



located on the fourth side surface and having a fourth portion wrapping around onto the top and bottom surfaces; and a ground plane 15 located between the second 11e and the third 11f dielectric layers, the ground plane overlaps the third and fourth portions (the middle extended portions that are connected to the third and fourth terminals 18; a first capacitor C1 being formed by a first metal plate 14a, the second dielectric layer and the ground plane; and a second capacitor C3 being formed by a second metal plate 14b, the second dielectric layer 11e and the ground plane 15.

Nakajima et al. is silent as to whether the dielectric layers can be made of ceramic. However, it would have been obvious to use ceramic material as the dielectric layer in the device of Nakajima et al. since it is well known in the art to use ceramic material as a dielectric layer/substrate in electrical filters.

Moreover, Nakajima et al. is unclear as to whether the ground plane overlaps the first and second portions. However, Nakajima et al. teaches "capacity is formed between the I/O edge of LC parallel circuit, and ground potential." (see paragraph [Function]).

Nosaka et al. (fig. 1) discloses a similar laminated filter having a ground plane 3 disposed on a bottom dielectric layer and teaches that the ground internal electrode 3 may be disposed on the entire top surface of the dielectric sheet (page 2, paragraph [0026]).

It would have been obvious to one of ordinary skill in the art to extend the ground plane in the device of Nakajima et al. to overlap with the first and second portions for

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decreasing the coupling between second and third dielectric layer as taught by Nosaka et al. (see paragraph [0026]).

Regarding claim 25, it is inherent from the device of Nakajima et al. that the ground plane or the capacitors improves isolation between the first and second terminals.

Regarding claim 24, providing vias to connect the ground plane to third and fourth terminals are considered as a matter of design choice since via connection is well known in the art.

Regarding claims 26 and 27, it would have been obvious to form terminals by screen printing process since such design technique is well known in the art, and Nakajima et al. also teaches using print process (see paragraph [0011]).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Tojyo et al. (fig. 1) discloses a laminated filter comprising a plurality of ceramic layers and capacitor electrodes connected to input/output terminals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (571) 272-2405. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Seungsook Ham  
Primary Examiner  
Art Unit 2817

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